



IBM Global Services

IT Services Consolidation As Implemented at IBM

Collaboration Example

Agenda

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 - At what level were they consolidated
- **Implementation Methodology**
- **Results**
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- **Cost Drivers**



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Description of Project

Overall IBM Scope

IBM has pursued the full scope of the Enterprise IT Services being considered by the Air Force.

- **Discovery**
- **Mediation**
- **Enterprise Storage**
- **Functional Application Hosting**
- **Enterprise Services Management**
- **Collaboration**
- **Messaging**
- **Security/Information Assurance**
- **User Assistance Services**

All services are being implemented globally across the entire enterprise.



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Description of Project

Collaboration Example

Collaborative Tool Portal

The screenshot shows the IBM Collaboration Central web portal in a Microsoft Internet Explorer browser window. The browser's address bar shows <http://w3.ibm.com/collaboration/>. The page features a navigation menu on the left with links to w3 Home, Collaboration Central, What is Collaboration?, Collaboration Advisor, Team Central, and Community Central. The main content area is titled "Collaboration Central" and includes a "News You Can Use" section with a banner for "Communities are developing now!". Below this, there are sections for "Top stories" (featuring IBM Lotus QuickPlace), "Article archive", and "Looking to collaborate?". The right sidebar contains links to "Forum on collaboration", "Sandbox technologies", and "Local focus".

Callouts on the left side of the image point to specific features on the portal:

- IM** (Instant Messaging) points to the "Instant Messaging" link under "REAL TIME TOOLS".
- e-meeting** points to the "e-meetings" link under "REAL TIME TOOLS".
- Conf. Rooms** (Conference Rooms) points to the "Conference Rooms" link under "REAL TIME TOOLS".
- Quick Place** points to the "QuickPlace" link under "TEAM TOOLS".
- Team Room Plus** points to the "TeamRoom Plus" link under "TEAM TOOLS".

Collaborative Tool Portal

Locate

Invite

Authenticate

Collaborate

The screenshot displays the IBM WebSphere Portal interface within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL: `http://bootcamp3.ibm.com:9081/wps/myportal/!ut/p/_s_7_0_A/7_0_P2/.cmd/ad/.ar/sa.SearchSimple/.c/6_0_CI/.ce/7_0_194/.p/5`. The portal's navigation bar includes links for 'My Portal', 'Edit my profile', and 'Log out'. The main content area is divided into several sections:

- HLS People Finder:** This section allows users to search for people. It includes a 'Search by:' dropdown menu set to 'Name', a 'Search for:' text box containing the letter 'v', and a 'Go' button. Below the search box is a table of search results:

Name	Phone Agency Name
<input type="checkbox"/> Beverly Venell	(503) 378-6377
<input type="checkbox"/> [Name obscured] Vasconez	(202) 646-4335 FEMA
<input type="checkbox"/> VA FEMA Contact	(804) 897-6500 Virginia Department of Emergency Management
<input type="checkbox"/> Vicki M. Laird	(340) 665-6180 FEMA
<input type="checkbox"/> Virgin Islands FEMA Contact	(340) 774-2244 Virgin Islands Territorial Emergency Management - VITEMA
<input type="checkbox"/> VT FEMA Contact	(802) 244-8721 Vermont Emergency Management Agency

Below the table are links for 'Show Details' and 'Clear', and a button labeled 'Add Members to Place'.

- My Lotus Team Workplaces:** This section allows users to search for their workplaces. It includes a 'Refresh' button, a 'Search my workplaces:' text box, and a 'Go' button. Below this is a table of search results:

Title	Last Modified
14NovTest01	11/14/03
davetest1	11/13/03
LA_Some_Major_Emergency	11/13/03

Below the table are links for 'Show Details' and 'Clear', and a button labeled 'Add Members to Place'.

The bottom of the page features a 'Lotus Web Conferencing' section with a 'New Meeting' button and a search for meetings that are 'In Progress'.

Inclusion of Audio & Video over IP requires QoS from the Network.

- **Without QoS guaranteeing the delivery of packets in order:**
 - Audio can be garbled
 - Video can be garbled
 - Encrypted feeds can be lost in their entirety
- **IBM has developed an integrated e-meeting capability that uses a traditional audio conference bridge to conduct high-quality e-meetings with audio.**



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Implementation Methodology

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Collaboration applications were piloted at large scale and rapidly rolled out to IBM's 330,000 employees.

- **Initial IM pilot supported 66,000 users to validate scalability.**
- **Tivoli used to monitor memory, CPU, and disk utilization.**



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Results

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Collaboration tools grabbed end user interest and saved millions of dollars in foregone travel and faster execution.

- **IM use from 2000 IBM locations currently experiences**
 - peak traffic of 100,000 concurrent users
 - 225,000 users/day
 - 2.5 million messages/day



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Best Practices

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IBM's governance model underlies our ability to deliver a technical solution that sets the bar for best practices

- **Governance model incents Lines of Business (MAJCOMs) and Functional Areas (FAMs) to work together to establish consistent requirements**
- **Transformation executives given enough scope to “horse trade”**
- **Consistent, robust, LDAP directory established across the enterprise**
- **Investment in proselytizing anticipated from the start**



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Lessons Learned

Collaboration Example

Things we didn't anticipate

- **Collaboration is addictive**
 - Heavy initial promotion is necessary to change organizational behavior

Policy changes necessary

- **Governance**
 - Overcome institutional rigidity
 - Establish service levels
 - Establish trust broker
- **Robust LDAP is critical**
- **Avoid separate, but parallel environments;**
 - It is difficult to keep them in synch



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Cost Drivers

Collaboration Example

Most of the costs of collaboration are usage driven

■ Technical

- Video is the most expensive service to provide
 - Large bandwidth requirements
 - QoS is critical
 - Specialized equipment is needed
- Audio has similar cost drivers to video, but the requirements are consistently smaller
- Storage costs per user are small, but add up to big dollars.

Additional organizational investments are required beyond those necessary to implement the technical solution

■ **Organizational**

- Governance structure needs to be implemented and effective
- Cross-services issues need to be included in systems engineering
 - Directory services
 - Security
 - ESM
- A functional architecture is needed to provide and integrative context for each service

Currently, the most costly Collaboration tools have the smallest number of users

